

KANSAS CITY, MISSOURI EMERGENCY OPERATIONS PLAN

Annex R: Debris Management

September 2014

KANSAS CITY, MISSOURI DEBRIS MANAGEMENT PLAN

Primary (lead) Departments:	Neighborhood and Housing Services Office of Emergency Management Office of Environmental Quality Parks and Recreation Department Public Works Department Water Services Department
Secondary (support) Departments:	3-1-1 Action Center City Communications Office Fire Department Information Technology Department Office of Management and Budget Other City Departments as Required Planning and Development Police Department
Secondary (support) External Agencies:	Kansas City Power & Light Federal Emergency Management Agency Mutual Aid Private Contractors Plan Bulldozer Members State Department of Natural Resources State Emergency Management Agency

I. PURPOSE STATEMENT

The purpose of this Annex is to provide guidance for implementing debris management (DM) operations during the response and recovery phases of a disaster or significant debris-generating event. This Annex describes overarching DM activities, key steps, and departmental responsibilities for specific actions required to mitigate post-event debris conditions and return to normal operations.

II. PLANNING ASSUMPTIONS

- A. Natural and man-made disasters often result in a variety of debris that includes but is not limited to trees, construction and demolition (C&D) materials, vehicles, white goods, household hazardous waste (HHW), and mixed debris.
- B. In a disaster, advanced planning is required for the City to quickly locate staff, equipment, and funds to devote to debris removal activities.
- C. Requirements for many government services will increase drastically following a major natural disaster. The City's capability to provide these services may be impacted by large fields of disaster-generated debris.
- D. The quantity and type of debris generated from any particular disaster will be a function of the location and kind of event experienced, as well as its magnitude, duration, and intensity.
- E. The quantity and type of debris generated, its location, and the size of the area over which it is dispersed will dictate the type of collection and disposal methods utilized, costs incurred, and how quickly debris-related problems can be addressed.
- F. Private contractors will play an important role in debris removal, collection, reduction, disposal, and monitoring during large debris-generating events.
- G. Based on the event, multiple temporary debris storage and reduction (TDSR) sites may be established to stage, segregate, and/or reduce debris before final disposal.
- H. Large-scale DM activities will be conducted in two operational phases: (1) the Response Phase, also known as the "70-Hour Push" for emergency roadway debris clearance, and (2) the Recovery Phase that continues until clean-up efforts are complete.
- I. Effective DM activities will be based on the waste management approach of reduction, reuse, reclamation, resource recovery, incineration, and land-filling.
- J. This Annex works in conjunction with **Annex D – Damage Assessment Plan** and does not replace or otherwise alter assessment activities described therein.
- K. If warranted, the City—through the State—will request federal assistance from the Federal Emergency Management Agency (FEMA).
- L. The City will operate under the current Public Assistance (PA) guidelines for reimbursement as described in the Stafford Act. Changes to the PA Program or published program-specific guidance may result in revisions to this Annex and/or its implementation.

III. LEGAL AUTHORITIES

- A. Kansas City Code of Ordinances, Section 2-691 – Office of City Communications
- B. Revised Statutes of Missouri (RSMo):
 - 1. Chapter 320.090 – Emergency services, contracts for mutual aid operative in disasters – requirements.
- C. Charter of Kansas City, Missouri (Adopted August 8, 2006), Article XII, Section 1211
- D. Administrative Regulation (AR):
 - 1. 1-04 Disaster Procedures.
 - 2. 1-23 Media Relations and Communication.
 - 3. 1-24 Disaster Documentation.
 - 4. 3-01 Emergency Purchases.

5. 3-21 Contract and Procurement Policies and Procedures.
- E. Kansas City Code of Ordinances, Section 2-691 – Office of City Communications.

IV. ORGANIZATION AND RESPONSIBILITIES

A. Departmental Responsibilities

1. All City Departments

At a minimum, all City departments are required to conduct a Rapid Needs Assessment within 12 hours of a disaster or debris-generating event when requested by the EMD. Departments will report on immediate needs to clear debris on City property that prevents department operation, including ingress/egress to facilities. Departments will also report obstructed public right-of-ways (ROW) encountered during operations within their respective areas of service. Additionally, all departments will document personnel and material resources used to comply with this Annex.

2. 3-1-1 Action Center

In conjunction with the Neighborhood & Community Services Department (N&HSD), the 3-1-1 Action Center collects and reports data provided by citizens and businesses calling to report debris on public ROWs and associated safety issues. The 3-1-1 Action Center also answers citizen and business questions regarding debris set-out procedures and schedules in accordance with public information releases.

3. City Communications Office

The City Communications Office assists with scheduling media releases and press interviews concerning the City's DM efforts and the general progress of activities. In coordination with the City Manager and Unified Command Team (UCT), the EOC Public Information Officer (PIO) is responsible for disseminating information that promotes and guides appropriate public participation in the debris removal process.

4. Debris Management Coordinator

Once activated by the EMD, the DM Coordinator serves as the lead for DM activities. The DM Coordinator is responsible for initiating and monitoring DM activities with support from members of the DM Team and other departments. In conjunction with the EMD and UCT, the DM Coordinator is tasked with the following:

- a. Fully establish the DM response function and needed support positions.
- b. Identify resources available for DM activities.
- c. Coordinate debris assessment activities and compile data.
- d. Establish response priorities and allocate resources.
- e. Estimate the quantity of debris on City property and ROWs.
- f. Initiate emergency roadway debris clearance (Response Phase/70-Hour Push).

- g. Activate debris removal contractors – establish contractor operations.
- h. Coordinate preparation/opening/closing of TDSR sites.
- i. Compile information for public dissemination.
- j. Coordinate transition to Recovery Phase operations.
- k. Assist with project completion and close-out.

5. Debris Management Team

Led by the DM Coordinator, the DM Team is staffed by members of N&HSD, Office of Environmental Quality (OEQ), Parks and Recreation (P&R), Public Works Department (PWD), and Water Services Department (WSD). While additional support is needed from other departments, DM Team departments provide resources and subject matter expertise required to initiate, monitor, and complete many DM-related activities. Collectively, the DM Team is responsible for the following tasks:

- a. Identify internal and external resources to support DM activities.
- b. Provide personnel and systems to assist decision-making.
- c. Provide information and guidance for public dissemination.
- d. Conduct a formal debris assessment and develop estimates.
- e. Conduct emergency roadway debris clearance (Response Phase/70-Hour Push).
- f. Conduct ongoing Recovery Phase operations.
- g. Provide department personnel and contractor support for DM activities, including oversight.
- h. Prepare/open/close TDSR sites.

6. Emergency Management Director/Unified Command Team

The EMD, in conjunction with the UCT, initiates the DM process by activating the DM Coordinator and larger DM Team. The EMD/UCT assists the DM Coordinator with analyzing assessment information, determinations to activate debris removal contractors, and identifying appropriate locations for various DM activities. The EMD, under the direction of the City Manager, also initiates discussions with the FEMA Debris Team and submits reports to the State Emergency Management Agency (SEMA) and federal agencies on behalf of the City.

7. Fire Department

Kansas City Fire Department (KCFD) conducts initial “windshield” safety surveys to determine whether it is safe for City personnel and the general public to enter affected areas. KCFD reports obstructed roadways and debris-related safety issues through its dispatch to the EOC. KCFD also provides search and rescue operations before debris removal, and supports characterization of ineligible materials in mixed debris piles. During debris incineration operations, KCFD provides fire suppression support and issues restrictions on burn operations based on environmental conditions.

8. General Services Department

The General Services Department (GSD) collects and reports damage to City buildings and facilities, including debris clearance/removal assistance required by City departments; and submits debris assessment (and damage assessment) data to the EMD. GSD coordinates fleet maintenance activities among departments to ensure ongoing availability of debris removal resources. GSD helps to ensure contractual obligations are met under DM contracts established through other departments; and may develop additional contracts during a state of emergency for DM-specific services when directed to do so by the EMD. GSD assists in compiling and reviewing documents required for reimbursement through FEMA's PA Program.

9. Information Technology Department

The Information Technology Department (ITD) assists with development of debris assessment maps and other geographic information systems (GIS) products based on data provided to the EOC. In support of DM operations in the EOC, ITD also provides backup for electronic documents generated during the event, and assists with provision of voice and data systems.

10. Neighborhood and Housing Services

N&HSD provides personnel to staff the DM Team in the EOC and coordinates debris clean-up efforts with neighborhoods. N&HSD also obtains and analyzes debris assessment information and submits data to the EOC to guide clean-up efforts. N&HSD is responsible for coordinating Individual Assistance (IA) to assist private individuals, businesses, and private-non-profit entities with the cost of recovery. During a large debris-generating event, N&HSD coordinates inspection and structural demolition services related to building safety issues. N&HSD also provides surge capacity vehicle tow services when requested by the EMD. N&HSD enforces codes related to public safety and improper debris disposal methods.

11. Office of Management and Budget

Office of Management and Budget (OMB) coordinates with the EMD, GSD, N&HSD, and the DM Coordinator in developing cost estimates associated with debris removal and disposal for both private- and public-sector properties. OMB also assists development of DM-related contracts for services, and reviews contractor documentation.

12. Office of Environmental Quality

OEQ provides personnel to staff the DM Team and ensures all DM activities are performed in an environmentally responsible manner. OEQ is responsible for collecting and analyzing environmental impact data and other information that contribute to a full assessment of debris removal costs. OEQ also coordinates with Water Services and KCFD for special handling of ineligible materials, including hazardous wastes that require alternative disposal streams. OEQ assists selection and opening of debris reduction/holding sites and subsequent site close-out

activities, including environmental remediation of sites. OEQ also coordinates with PWD to provide direction on maximizing reuse and recycling of debris materials through communications with contractors, state officials, and non-profits in the waste management field.

13. Parks and Recreation Department

P&R provides personnel to staff the DM Coordinator position within the EOC and provides additional support through its personnel on the DM Team. In conjunction with the PWD, P&R develops and coordinates formal debris assessment teams. P&R also assists emergency street clearance operations and provides critical services to address trees and tree limbs that could damage persons or property, or interfere with emergency vehicle traffic. When required, P&R staffs barricade teams to close off affected streets, and may activate contractors for provision of DM services. P&R works in conjunction with other DM Team departments to manage TDSR sites, and is responsible for obtaining debris assessment data for all properties within its primary service area.

14. Planning and Development

Planning and Development assists the EMD and other departments by providing housing data, economic impact data, and other information that contributes to a complete debris assessment. At the direction of the City Manager's office, Planning and Development also assists in identifying City-owned property suitable for DM activities.

15. Police Department

In conjunction with, Kansas City Police Department (KCPD) conducts initial "windshield" safety survey to determine whether it is safe for city personnel and the general public to enter affected areas. KCPD also supports search and rescue operations and secures debris fields related to potential crime scenes before debris removal activities are initiated. Through its dispatch center, KCPD reports obstructed roadways and debris-related safety issues to the EOC.

16. Public Works Department

PWD provides personnel to staff the DM Coordinator position within the EOC, and provides additional support through its personnel on the DM Team. In conjunction with the P&R, PWD develops and coordinates formal debris assessment teams. PWD is responsible for assisting emergency street clearing and provides critical DM services during Recovery Phase operations. PWD also staffs barricade teams, activates contractors to provide DM services, and works in conjunction with the larger DM Team to manage TDSR sites.

17. Water Services Department

WSD provides personnel to staff the DM Team in support of the DM Coordinator in the EOC. WSD assists in emergency roadway clearance and provides debris-hauling resources that are critical in all phases of DM operations. Within its primary service area, WSD is responsible for monitoring facilities and clearing debris that

may impact storm water collection and water distribution systems. WSD may also activate contractors to provide heavy equipment needed to conduct DM activities. In coordination with other departments, WSD places barricades on affected streets and provides centralized dispatch for departments staffing barricades teams. In conjunction with OEQ and KCFD, WSD also provides direction and coordination on debris-related hazardous waste issues.

V. CONCEPT OF OPERATIONS

A. Initiation of Operations

The DM Team, led by the DM Coordinator, will be activated and staffed as a DM-dedicated function in the EOC. The DM Team will coordinate all debris-related response and recovery activities with support from other departments and direction of the EMD (and when activated, the UCT).

The EMD will activate the DM function by notifying senior management representatives of PWD and P&R to respond to the EOC. These representatives will provide initial DM coordination and make a determination—in conjunction with the EMD—whether to activate the larger DM Team. If warranted, N&HSD, OEQ, and WSD will be notified to provide a senior representative to staff the DM Team, thereby completing activation of the DM Team.

The EMD will assign a responding representative from one DM Team department to serve in the DM Coordinator position in the EOC. In later operational periods, DM Team departments may support the DM Coordinator from their respective offices. The DM Coordinator position may be staffed by representatives from different DM Team departments in subsequent operational periods.

B. Debris Assessment

The City will determine the extent and location of debris via “windshield surveys,” and communicate locations of impacted areas to the DM Coordinator to assist prioritization of road clearance efforts.

1. The City will utilize established damage assessment procedures set forth in **Annex D – Damage Assessment Plan**. Procedures for Initial Safety Assessment, Rapid Needs Assessment, and Preliminary Damage Assessment will be implemented in accordance with Annex D.
2. GSD will collect, review, and summarize the assessment data obtained, and provide summary debris assessment data to the DM Coordinator to assist in estimating the quantity of debris on City property and public ROWs.
3. Based on department status reports received by GSD and disseminated to the EOC, the DM Coordinator will assign City resources on a priority basis to clear access to viable City buildings and facilities. Aviation, P&R, PWD, and WSD maintain significant equipment and human resources to conduct debris removal. These departments will provide unassisted emergency clearance for buildings and facilities within their primary service area unless otherwise indicated in the departments’ initial assessment reports to GSD.

4. At the direction of the EMD, a debris-specific Rapid Needs Assessment will be conducted to determine the scope of event. This type assessment is warranted after a large debris-generating event, such as an ice storm, when clearance and removal of vegetative debris will be the primary focus of the City's response and recovery operations. Generally, the Debris Rapid Needs Assessment will be initiated and completed within 12 to 24 hours of the onset of the event.

To initiate assessment activities, the DM Coordinator will organize and coordinate field debris assessment teams comprised of trained personnel from DM Team departments. Field assessment teams will be briefed, provided standardized assessment worksheets, and assigned to specific geographic areas. Reports from field teams will be compiled by the DM Coordinator for analysis by the larger DM Team. Summary assessments will be provided to the EMD, as available.

5. The DM Coordinator will request aerial assets to assist debris assessment activities, as required. Upon availability, KCPD will provide aerial assets for the initial debris assessment and/or Recovery Phase operations.
 6. Debris estimates to be developed by the DM Team and provided to the EMD will describe the volume and types of debris in each affected area of the City. The DM Coordinator will review, revise, and disseminate estimates as new data are obtained. Assessment information will also be provided to OMB to assist in developing cost estimates of executing event-related DM activities. Techniques for estimating debris volume will utilize methods, formulas, and conversion factors outlined in FEMA 329 – Debris Estimating Field Guide.
 7. The DM Coordinator will communicate with GSD and the DM Team to estimate availability and type of City assets to be dedicated to debris removal operations.
 8. Need for state and/or federal assistance will be determined by the City during the assessments process; and requests for assistance will be made in accordance with established procedures.
 9. If warranted, and in conjunction with the City Manager's Office, the DM Coordinator will contact the Missouri Department of Natural Resources (MDNR) as soon as possible to request an emergency temporary permit for waiver of existing rules and regulations for solid waste disposal.
- C. Emergency Roadway Debris Clearance (Response Phase/70-Hour Push)

The City will commence immediate road clearance ("cut and toss") activities using City resources. The Response Phase, also known as the "70-Hour-Push," encompasses the period when roadways are cleared of scattered debris, leaning trees, and other roadway obstructions to emergency response vehicles. Initial efforts will focus on arterial roads leading to shelters, hospitals, supply points, and other incident-critical locations throughout the City. Safe passage of emergency vehicles and access to needed City services/facilities will be top priority.

2. Emergency roadway clearance activities will begin as soon as practical and will not be delayed to develop debris estimates or conduct other assessment activities.
3. The DM Coordinator will communicate with DM Team departments to identify available City resources by type and quantity; and develop a resource inventory of City assets.

4. The DM Coordinator will identify areas sustaining extensive damage and subdivide affected areas into smaller work zones, as necessary.
5. DM Team departments will coordinate to establish a Truck Certification and Staging Area where City vehicles (and contractor vehicles if activated) will assemble to verify each vehicle's type and capacity. A unique identifier will also be assigned to each vehicle to assist tracking and reporting activities. The assembly area may also be used to brief City crews, review procedures, and make initial work assignments. In some cases, more than one Truck Certification and Staging Area may be established.
6. Based on available data, the DM Coordinator will use the City's established street designations and event-specific factors to prioritize emergency roadway debris clearance activities. Clearance activities will be initiated using the City's General Priorities list. Event-specific priorities will be incorporated into the prioritization process to ensure critical locations affected by the event receive priority service. Emergency roadway clearance activities will proceed in accordance with the following priorities:

General Priorities:

- a. Primary and Secondary Arterials.
- b. Collector Streets.
- c. Local Streets, City ROWs, and other properties.

Event-specific Priorities:

- a. Access to critical services (i.e., hospitals, shelters, etc.) and affected City facilities required for provision of emergency services (i.e., debris clearance, dispatch centers, police and fire stations, etc.).
- b. Access to other affected City buildings and facilities—including government, critical infrastructure, and key resource locations.
7. With assistance from the DM Team, the DM Coordinator will develop work zones to include priority routes, and will deploy available assets for emergency roadway clearance. Work zone information will be provided to ITD for development into GIS products, and the resulting maps will be used to guide DM activities.
8. When live electric lines are involved, the DM Coordinator and work crews will coordinate with Kansas City Power & Light (KCP&L) to identify power lines to be de-energized for safety reasons.
9. The DM Coordinator will be responsible for disseminating City assessment and operational data to adjacent jurisdictions and the State to prioritize and expedite DM activities. Emergency roadway clearance will be coordinated among Missouri Department of Transportation (MoDOT), adjacent cities, and county-level departments to ensure continuous road segments crossing jurisdictional boundaries are cleared via an organized approach. Areas targeted for state and federal assistance will be considered in the prioritization process.

D. Monitoring and Documentation Procedures

Proper documentation enables the City to fully account for debris clearance and removal costs incurred as a result of a declared disaster through FEMA's PA Program. Qualifying for reimbursements depends on the City's ability to document eligible costs.

1. Debris monitoring and documentation activities will be conducted in accordance with AR 1-24 (Disaster Documentation), FEMA 327 – Public Assistance Debris Monitoring Guide, and FEMA 325 – Public Assistance Debris Management Guide.
2. The City will coordinate with the FEMA PA team and contractors in the field to monitor and document activities using load tickets, loading site logs, tower monitoring logs, roving monitor reports, daily issue logs, and truck certification forms (see Attachment R-1). This will ensure DM activities are documented in accordance with state and federal requirements, and that standard reporting methods are used.
3. In conjunction with the FEMA PA team, the DM Coordinator will ensure debris monitoring is in place and conducted in accordance with FEMA 327 – Public Assistance Debris Monitoring Guide. The responsibilities and duties of individual debris monitors in the field are the same for both City staff and contracted debris monitoring operations. These are:
 - a. Report issues to the assigned supervisor that require action (i.e., safety concerns, contractor non-compliance, inappropriate equipment use, etc.).
 - b. Accurately measure and certify truck capacities (recertify on a regular basis).
 - c. Properly and accurately complete and physically control load tickets (in tower and field).
 - d. Ensure trucks are accurately credited for each load.
 - e. Ensure trucks are not artificially loaded (i.e. debris is wetted, debris is not compacted, etc.).
 - f. Validate hazardous trees, including hangers, leaners, and stumps.
 - g. Ensure that hazardous wastes are not mixed in loads.
 - h. Ensure that all debris is removed from trucks at TDSR sites.
 - i. Report if improper equipment is mobilized and used.
 - j. Report if contractor personnel safety standards are not followed.
 - k. Report if general public safety standards are not followed.
 - l. Report if completion schedules are not on target.
 - m. Ensure that only debris specified in the contract is collected, and is identified as eligible or ineligible.
 - n. Assure City personnel and/or debris contractors follow their respective assigned scopes of work.
 - o. Monitor site development and restoration of TDSR sites.
4. Debris-related documentation will be compiled daily by the DM Coordinator and evaluated by the City Manager's Office or designee with assistance from DM Team departments.

Truck Certification

1. Truck certification is an important function in initiating a debris removal operation. Accuracy and documentation of all measurements is critical. All City and contractor vehicles hauling debris will have capacity and dimensions measured, sketched, photographed, and documented on a truck certification form.
2. Each vehicle will be assigned a unique number for debris tracking and invoice reconciliation purposes.
3. A comprehensive list of truck certification data will be compiled by the DM Coordinator and provided to debris monitors in the field. The number and types of vehicles used for debris hauling will likely increase as removal operations progress; therefore, truck certification data will be updated and disseminated as new information is obtained.
4. Attachment R-1 contains a sample Truck Certification Form detailing information that will be collected by City staff, contractors, and/or FEMA PA team members supervising the certification process.

Load Tickets and Debris Loading Site Log

1. The load ticket provides the most comprehensive information and documentation for PA Program reimbursement. During debris removal activities, Load Tickets will be generated to assist monitoring and provide documentation to validate the origins and quantities of debris loaded, and identify the truck/trailer used to transport the debris.
2. Loading information on the ticket—including the date, time, location (global positioning system [GPS] coordinates or address preferred), and truck information will be entered by City staff and/or FEMA PA team personnel assigned to monitor loading activities in the field.
3. Loading information will be entered into the Debris Loading Site Log by the loading site monitor. Unloading information in the last section of the Load Ticket will be entered at the TDSR site receiving the debris—including the type and quantity of debris comprising each load received.
4. Attachment R-1 contains a sample Load Ticket, and Debris Loading Site Log detailing information that will be collected by City staff, contractors, and/or FEMA PA team members engaged in monitoring activities.

Daily Issues Log

1. When issues arise, the loading site monitor will document problems, unusual events, and safety issues in the Daily Issues Log.
2. Each loading site monitor will provide his or her name (and company name if contractor) on the form and record any issues noted for that day, and provide comments concerning that day's operation.
3. The site monitor will report critical issues requiring immediate resolution to the DM Coordinator. The DM Coordinator—with support from DM Team departments—will notify other site monitors of important issues and solutions that have been identified.

4. At minimum, a Daily Issues Log will be maintained at each site conducting debris loading operations but may be used to document the work of multiple crews.
5. Time-stamped photographs will be taken to document and support each log entry. Attachment R-1 contains a sample Daily Issues Log detailing information that will be obtained by City staff, contractors, and/or FEMA PA team members engaged in monitoring activities.

Tower Monitoring Reports and Roving Monitoring Reports

1. DM Team departments, in conjunction with FEMA's DM Team and contractor personnel, will be tasked with monitoring and documenting activities at TDSR sites using Tower Monitoring Reports.
2. Free-standing towers or other means of elevation will be used to view each truck's debris load, make volume estimates, and direct unloading activities. Monitoring locations will be established at the ingress and egress points of TDSR sites to complete and physically control load tickets.
3. A list of truck/trailer certifications with attached photos will be maintained at TDSR tower site to assist vehicle validation and debris documentation activities.
4. Similar documentation will be collected in the field by monitors via Roving Monitor Reports. The DM Coordinator will work with FEMA PA team members and other monitoring personnel to spot check load tickets and truck certifications. The City will utilize Roving Monitoring Reports to promote situational awareness and identify developing issues. The information entered into these reports promotes quality assurance and may also be required for PA Program funds.
5. Attachment R-1 contains a sample Tower Monitoring Log and Roving Monitoring Report detailing information that will be obtained by City staff, contractors, and/or FEMA PA team members engaged in monitoring activities.

Records Management

1. The DM Coordinator will work with DM Team departments, GSD, and the City Manager's Office to develop an up-to-date document library that includes, but is not limited to:
 - a. Debris monitoring forms, tickets, and logs
 - b. Department labor and equipment timesheets
 - c. Department equipment and material costs
 - d. Damage costs and conditions
 - e. Personnel policies
 - f. Safety procedures
 - g. Contract procurement procedures
 - h. Contracts
 - i. Billing and invoices, including debris hauler load tickets
 - j. Environmental permits

- k. Right of entry and hold harmless agreements for private property debris removal and demolition, when applicable
- l. Public information announcements
- m. Debris salvage value information
- n. Reports on debris removal work that does not comply with all City ordinances, as well as state and federal regulations (i.e., disposal of hazardous wastes)
- o. Record of the types of equipment used (time & materials contract)
- p. Record of the number of hours equipment was used, including downtime of each piece of equipment by day (Time & Materials contract).

Any additional requirements, including Disaster-Specific Guidance (DSG), will be communicated to the City by a senior representative of FEMA's DM Team and implemented as soon as practical.

- 2. Documentation will address the activities of City personnel related to implementation of this Annex. Contracted DM service costs will be documented through contracts and approved invoices.
- 3. The City will review DM-specific FEMA forms and provide information indicated in the applicable reports contained in Appendix C of *FEMA 325 – Public Assistance Debris Management Guide*.
- 4. The City Manager's Office will coordinate with ITD and DM Team departments to develop and back-up electronic copies of all documentation, and maintain an up-to-date document library.

E. Contractor Assistance

OEM and the DM Coordinator will utilize formal debris assessment data and reports from City departments to determine whether to activate private debris removal contractors.

- 1. If warranted, the City Manager's Office will notify DM Team departments to activate private contractors able to assist the City with DM activities. Contractor support will be sought in services areas where operational requirements have exceeded (or will likely exceed) available City resources. Activation of emergency contracts for DM services will be conducted in accordance with 44 *Code of Federal Regulations* (CFR) Part 13 and **Annex G – Resource Management Plan**.
- 2. Once activated, the DM Coordinator and the EMD will determine if presence of the contractor(s) is needed at the EOC during the event. Coordination activities with contractors may occur outside the EOC based on the situation and scope of DM services provided by the contractor(s).
- 3. GSD will coordinate with the City Manager's Office and the City department originating the contract to review each contract's terms, conditions, and scope of services to ensure the City's best interest is served and required documentation is in place. Contracts and procurement procedures will also be reviewed for compliance with 44 CFR 13.36.
- 4. The City's priorities include efforts to maximize recycling and beneficial use of debris. These priorities will be considered during contractor selection and activation

processes. The City holds the right to approve or deny final disposal methods, as well as disposal sites utilized by debris contractors.

5. All DM contractors will utilize documentation and reporting methods consistent with City procedures and FEMA requirements.
6. The DM Coordinator will meet with contractors to review contracts for scope of services, procedures, and timelines for operations. During the briefing, the contractor will also review the relevant sub-sections of this Annex, up-to-date road lists, and the debris work zone map.
7. One hauling contractors are activated; all contractor vehicles used to haul debris will undergo truck certification to verify the type and capacity of vehicles used.
8. The DM Coordinator will ensure contracted activities and the progress of such activities are monitored to ensure appropriate information is being obtained and properly documented by contractors.
9. The DM Coordinator, in conjunction with the City Manager's Office, will review all invoices for accuracy and completeness before approval.

F. Selection and Preparation of Temporary Debris Storage and Reduction Sites

The City will identify the quantity and types of Temporary Debris Storage and Reduction Sites (TDSR) sites to be opened based on location and concentration of debris. While pre-identified sites will be utilized, timely and cost-effective DM operations may require establishment of additional sites.

1. In conjunction with the EMD, the DM Team will identify TDSRs to be established based on locations and concentrations of debris.
2. Based on availability and suitability, DM Team departments will begin preparation of sites as soon as practical. In cases where additional TDSRs are needed, the following qualification criteria will be used in the site selection process:
 - a. Property ownership.
 - b. Surrounding land use; and proximity of the site and the site's entrance to residences.
 - c. Current availability and duration of availability.
 - d. Adequate capacity and size for intended uses, including space for tower and scale installation, truck queue and truck turnaround, recycling, HHW storage, public drop-off, etc.
 - e. Ease of ingress/egress and site topography.
 - f. Ease of preparation.
 - g. Distance from entrance/exit to closest main road.
 - h. Number of traffic lights between entrance/exit and closest main road.
 - i. Presence of low-hanging wires.
 - j. Concentration of debris in proximity to site.
 - k. Environmental impact, including runoff characteristics; and presence of non-mapped wetlands and water resource areas.
 - l. Time and cost of returning site to original condition.

m. Relative location to other TDSRs.

3. Once sites are prepared for operations, the DM Coordinator will notify City departments and debris contractors of open TDSR sites. The DM Coordinator will arrange for development and dissemination of GIS products describing TDSR sites, and coordinate mapping updates as sites are opened and closed-out; and provide ongoing TDSR site status reports to DM Team departments as needed.
4. DM Team department staff and/or assigned contractors will monitor and oversee contractor activities in the field to ensure contractual obligations, environmental standards, documentation requirements, and the best interests of City are being met.
5. The DM Coordinator may be directed by the City Manager to establish residential drop-off stations. Site locations will be selected to receive eligible materials based on the scope and types of debris generated by the event. Multiple locations may be established to receive and stockpile different types of material.
6. The City, through OEQ and DM Team department representatives, will coordinate with MDNR for approval of sites as required.
7. TDSR site preparation will include designation of a set-aside area reserved for temporary placement of hazardous commercial wastes, HHW, and medical wastes that may be encountered during the debris reduction process. Such materials will be segregated and removed from vegetative and C&D waste piles, and transported to appropriate sites for disposal. An example of TDSR site layout and designed traffic pattern is located in Attachment R-2.

G. Public Information and Warning

The City will coordinate and disseminate timely, accurate, and useful information regarding DM activities in accordance with **Annex C – Public Information and Warning Plan**. Public information and guidance on DM activities will, at a minimum, address the following debris-specific issues:

1. Health and safety, including hazards commonly associated with debris-generating events (e.g., downed power lines, hanging limbs).
2. Deadlines for debris set-out and schedule for debris pick-up on ROWs.
3. Descriptions of eligible and ineligible debris.
4. Proper debris set-out procedures (e.g., using the ROW, keeping fire hydrants clear, segregating debris).
5. Locations for residential drop-off sites and type(s) of debris accepted at various locations, including closure times and dates.
6. Use of private contractors and mutual aid resources.
7. General progress of the debris clean-up process.
8. Other guidance, as deemed appropriate by the City Manager's Office (e.g., loss documentation, code enforcement, environmental issues).

H. Recovery Phase Operations (4 days – 3 months)

The Recovery Phase involves debris removal and reduction of debris from the public ROW utilizing City and contractor resources. The City will also evaluate the need for debris removal on private property, parks, and waterways.

1. The DM Coordinator will arrange for opening all required TDSR sites that have met the City's site selection criteria. DM Team departments will assist in oversight of activities, and will coordinate with contractors and regulatory agencies as needed.
2. The DM Team will re-prioritize work areas and routes based on results of Response Phase operations (70-Hour Push). ITD will develop updated GIS products to reflect newly established priority areas and routes.
3. Once work zones and routes are identified, DM Team departments and contractors will begin ROW debris removal of vegetative waste. The DM Coordinator will review documentation, reporting procedures, and work assignments with supervisors overseeing operations. When necessary, C&D Waste removal operations will also be initiated on the recommendation of the DM Coordinator and at the direction of the City Manager.
4. As staffing resources are available, P&R personnel will perform a parks damage assessment to include all property within the department's primary service area. Assessment results will be communicated to the DM Coordinator, and clean-up efforts will be prioritized among other activities by the DM Team
5. The City, through the City Manager's Office and DM Coordinator, will continue to coordinate efforts with external agencies (e.g., MoDOT, KCP&L, adjoining jurisdictions) to ensure debris clearing and removal operations are progressing at all metro area road segments. Ongoing coordination will also continue with citizens and neighborhood associations through 3-1-1 and the N&HSD.
6. The DM Coordinator will arrange for monitoring of all DM activities through representatives of DM Team departments, contractor services, and/or other City staff designated to provide oversight services. Documents generated by City personnel and contractors will be reviewed for completeness and accuracy of information. The DM Coordinator, in conjunction with the City Manager's Office, will review all invoices for accuracy and completeness before approval.
7. The EMD and DM Coordinator will initiate discussions with the FEMA Public Assistance Officer (PAO) and, after approximately two weeks of Recovery Phase operations, will arrange for weekly meetings to conduct the following:
 - a. Summarize the City's debris removal operations to date.
 - b. Review debris and cost estimates for the City.
 - c. Review any DSG documents issued by FEMA.
 - d. Examine the City's debris removal plan.
 - e. Provide contact information for all City contractors and DM Team members.
 - f. Determine additional information needed by the PAO in order to generate Project Worksheets for the City.

In order for FEMA to generate a Category A: Emergency Phase Debris Removal and Debris Monitoring Project Worksheet, the following items will be compiled under the direction of the Office of Emergency Management:

- a. A copy of the debris removal contract(s).

- b. A copy of the debris monitoring contract(s).
 - c. Information on the procurement process on debris removal and monitoring contracts.
 - d. Addresses and GPS coordinates of all TDSR sites.
 - e. Debris estimates, including models used and damage assessment reports.
 - f. Monitoring estimate (based on budgeted labor hours).
 - g. A brief debris removal plan overview.
8. DM Team representatives will coordinate with the City Communications Office and N&HSD to take all appropriate steps to address/prevent illegal dumping, through media releases and codes enforcement functions.
9. In conjunction with the EMD, the DM Coordinator will open residential drop-off stations for vegetative debris and C&D materials.
10. At the direction of the City Manager, the City will also establish transfer stations for holding ineligible materials requiring separate waste streams and disposal methods. Satellite locations for HHW drop-off stations may be established through WSD and the City's HHW Program.
11. The City will maintain operations and periodically evaluate ROW clean-up efforts. Based on progress of Recovery Phase operations and availability of resources, the DM Team departments will initiate a ROW Leaners/Hangers Program to remove damaged limbs, as well as trees that are no longer viable due to the event. Scheduling and timing of the City's Leaners/Hangers Program will vary greatly based on the event; however, these operations are expected to commence within 3 months of the initial event.
12. In coordination with N&HSD and the City Manager's Office, the EMD will work with the DM Coordinator to evaluate the need for contract debris removal on private property, parks, and waterways. These specialized debris removal operations are typically governed by DSG and 44 CFR 206.224; and require some level of FEMA pre-validation before action. If the City determines there is an immediate and imminent threat to public health and safety, these programs will be expedited.
13. In conjunction with the EMD, the DM Coordinator will initiate operations to haul-out reduced debris from TDSR sites to final disposal sites, as necessary.

I. TDSR Site Close-out

Each TDSR site will be emptied of all material and restored to its previous condition and land use. Efficient scheduling of activities, as far in advance as possible, will minimize down time between steps in the close-out process.

1. The DM Team, EMD, and contractor representatives will meet to ensure site close-out procedures are in place and procedures are reviewed with key staff. The basic close-out steps are as follows:
 - a. Remove all debris from the site.
 - b. Conduct an environmental assessment.
 - c. Develop a remediation or restoration plan approved by the land owner, DM Team, EMD, and MDNR.
 - d. Execute the plan, get acceptance from the landowner and MDNR, and terminate lease payments (if applicable).
2. The DM Coordinator will review contractor work assignments and arrange for removal of all remaining eligible debris piles before commencing site close-out procedures. Operations will also include removal and disposal at approved landfills of mixed debris, C&D debris, and debris residue.
3. DM Team departments and/or assigned contractors will monitor all closeout and disposal activities to ensure contract specifications are met—and will comply with additional measures required by state and federal environmental regulations during this process.
4. During the debris removal process and after the material has been removed from each TDSR site, environmental monitoring will ensure that no long-term environmental contamination is left on site. Based on the site and reduction methods utilized, four different media will be monitored: ash, soil, surface water (e.g., ponds, lakes, and tributaries), and groundwater.
5. The DM Team will conduct a formal closeout and remediation of TDSR sites. Site closeout requires a walk-through by City personnel and approval by a representative from MDNR to ensure compliance with state and City regulations.

J. Demobilization and Project Completion

The City will complete all Debris Recovery Activities as it continues with code enforcement, public information functions, and coordination with other entities to close the project.

1. The DM Team and EMD will work to finalize disposal of reduced debris. Documentation describing vehicles, load tickets, tipping fees, and other processing information will be reviewed to ensure information is complete and accurate.
2. The DM Coordinator will also review available information identifying ineligible debris remaining on ROWs. At direction from the City Manager, the City will address ineligible debris/materials on public ROWs using one or more of the following options:
 - a. Use City code enforcement functions to hold individual homeowners and businesses responsible for disposal of the ineligible debris.

- b. Conduct removal of ineligible debris internally using City resources.
 - c. Utilize contractor services for removal of ineligible debris.
3. In coordination with N&HSD and DM Team departments, the City Communications Office will develop and issue media releases announcing termination of DM activities. Messaging to residents will focus on clarifying ineligible debris confusion and communicating debris set-out deadlines in order to minimize illegal dumping. Protocols for addressing leaners/hangers and implementing gated community debris removal programs, if applicable, will be communicated at this time.
4. The EMD, DM Team representatives, GSD, and the City Manager's Office will conduct a project closeout meeting with the FEMA Debris Team and external agencies. At this time, a document review will be conducted, and outstanding issues regarding PA funding eligibility will be addressed.

ATTACHMENT R-1
Example Debris Monitoring Forms

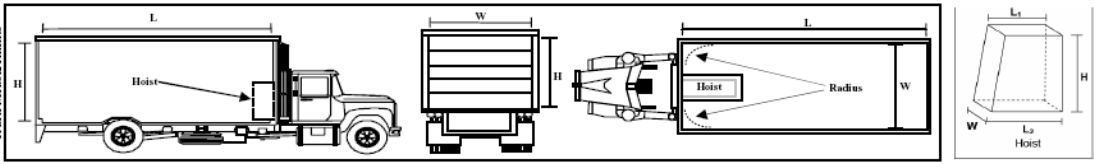
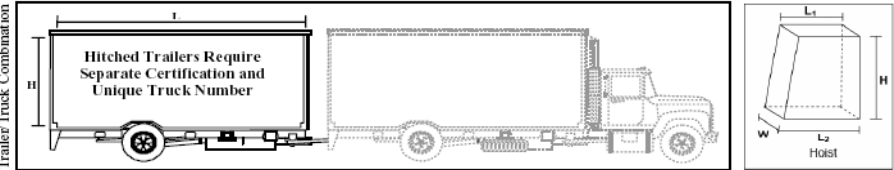
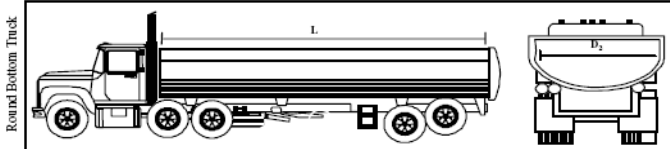
Figure 1: Example Load Ticket

Load Ticket		Ticket No.	
Municipality (Applicant)		Prime Contractor	
		Sub-Contractor	
Truck Information			
Truck No		Capacity	
Truck Driver (print legibly)			
Loading Information			
Loading	Time	Date	Inspector/Monitor
			Name:
			Agency:
Location (Address or Cross Streets)			
When Using GPS Coordinates use Decimal Degrees (N xx.xxxxx)			
N		W	
Unloading Information			
Debris Classification		Estimated %, CYs, or Actual Weight	
<input type="checkbox"/> Vegetarian <input type="checkbox"/> C&D <input type="checkbox"/> White Goods <input type="checkbox"/> HHW <input type="checkbox"/> Other* See Below			
Unloading	Time	Date	Inspector/Monitor
			Name:
			Agency:
Site Name and Location			
*Other Debris Explanation		Original: Applicant Copy1: _____ Copy2: _____ Copy3: _____	

Figure 2: Example Truck Certification Form

TRUCK CERTIFICATION FORM			
General Information			
Applicant: _____	Monitor: _____		
Contractor: _____	Date: _____		
Measurement Location: _____	County: _____		
Declaration Number: _____			
Truck Information			
Make	Year	Color	License
<p>Truck Measurements</p> <p>Performed By: _____ Date: _____</p> <p>Volume Calculated By: _____ Date: _____</p> <p>Both Checked by: _____ Date: _____</p>			
Driver Information			
Name: _____			
Address: _____			
Phone Number: _____			
Owner Information			
Name: _____			
Address: _____			
Phone Number: _____			
<div style="border: 2px solid black; width: 150px; height: 60px; margin: 0 auto;"></div> <p>Truck Identification</p>		<div style="border: 2px solid black; width: 150px; height: 60px; margin: 0 auto;"></div> <p>Truck Capacity</p>	
<div style="border: 2px solid black; width: 350px; height: 150px; margin: 0 auto;"></div> <p>Photo</p>			
<small>(See reverse for calculation worksheet)</small>			

Figure 3: Example Truck Certification Form (page 2)

DUMP TRUCK			
Measurements <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> Truck Measurements Hoist Measurement Radius </div> <div style="width: 30%;"> Length (L) = <input style="width: 100%;" type="text"/> Length₁ (L₁) ft = <input style="width: 100%;" type="text"/> Length₂ (L₂) ft = <input style="width: 100%;" type="text"/> Radius ft = <input style="width: 100%;" type="text"/> </div> <div style="width: 30%;"> Width (W) ft = <input style="width: 100%;" type="text"/> WidthH (W_H) ft = <input style="width: 100%;" type="text"/> Height (H) = <input style="width: 100%;" type="text"/> Height_H (H_H) ft = <input style="width: 100%;" type="text"/> Height (H) = <input style="width: 100%;" type="text"/> </div> </div>			
Calculations <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> Bed Volume (Basic) Hoist Volume Radius Volume Total = <input style="width: 100%;" type="text"/> cyd </div> <div style="width: 30%;"> $(L \times W \times H) / 27 =$ <input style="width: 100%;" type="text"/> cyd $((L_1 + L_2) / 2) \times W_H \times H_H / 27 =$ <input style="width: 100%;" type="text"/> cyd $(3.14 \times R^2 \times H) / 27 =$ <input style="width: 100%;" type="text"/> cyd </div> <div style="width: 30%; text-align: right;"> <div style="border: 1px solid black; height: 40px; width: 100%;"></div> Cubic Yards </div> </div>			
<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small; margin-right: 5px;">Truck Measurements</div> <div style="flex-grow: 1;">  </div> </div>			
EXTRA TRAILER			
Measurements <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> Truck Measurements (Basic) Hoist Measurement Radius </div> <div style="width: 30%;"> Length (L) = <input style="width: 100%;" type="text"/> Length₁ (L₁) ft = <input style="width: 100%;" type="text"/> Length₂ (L₂) ft = <input style="width: 100%;" type="text"/> Radius ft = <input style="width: 100%;" type="text"/> </div> <div style="width: 30%;"> Width (W) ft = <input style="width: 100%;" type="text"/> WidthH (W_H) ft = <input style="width: 100%;" type="text"/> Height (H) = <input style="width: 100%;" type="text"/> Height_H (H_H) ft = <input style="width: 100%;" type="text"/> Height (H) = <input style="width: 100%;" type="text"/> </div> </div>			
Calculations <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> Bed Volume (Basic) Hoist Volume Radius Volume Total = <input style="width: 100%;" type="text"/> cyd </div> <div style="width: 30%;"> $(L \times W \times H) / 27 =$ <input style="width: 100%;" type="text"/> cyd $((L_1 + L_2) / 2) \times W_H \times H_H / 27 =$ <input style="width: 100%;" type="text"/> cyd $(3.14 \times R^2 \times H) / 27 =$ <input style="width: 100%;" type="text"/> cyd </div> <div style="width: 30%; text-align: right;"> <div style="border: 1px solid black; height: 40px; width: 100%;"></div> Cubic Yards </div> </div>			
<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small; margin-right: 5px;">Trailer/Truck Combination</div> <div style="flex-grow: 1;">  </div> </div>			
ROUND BOTTOM TRUCK			
Measurements <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> Truck Measurements </div> <div style="width: 30%;"> Length (L) ft = <input style="width: 100%;" type="text"/> </div> <div style="width: 30%;"> Diameter (D) ft = <input style="width: 100%;" type="text"/> </div> </div>			
Calculations Approx. Volume $(3.14 \times (D/2)^2 \times L) / 27 =$ <input style="width: 100%;" type="text"/> cyd (round bottom portion only)			
<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small; margin-right: 5px;">Round Bottom Truck</div> <div style="flex-grow: 1;">  </div> </div> <div style="border: 1px solid black; height: 40px; width: 100%; margin-top: 10px;"></div> <div style="text-align: right; font-size: small;">Cubic Yards</div>			

Date: _____

ROVING MONITOR REPORT

Page_____

Applicant: _____

TOWER MONITOR LOG

Annex R-24

Figure 6: Example Daily Issue Log

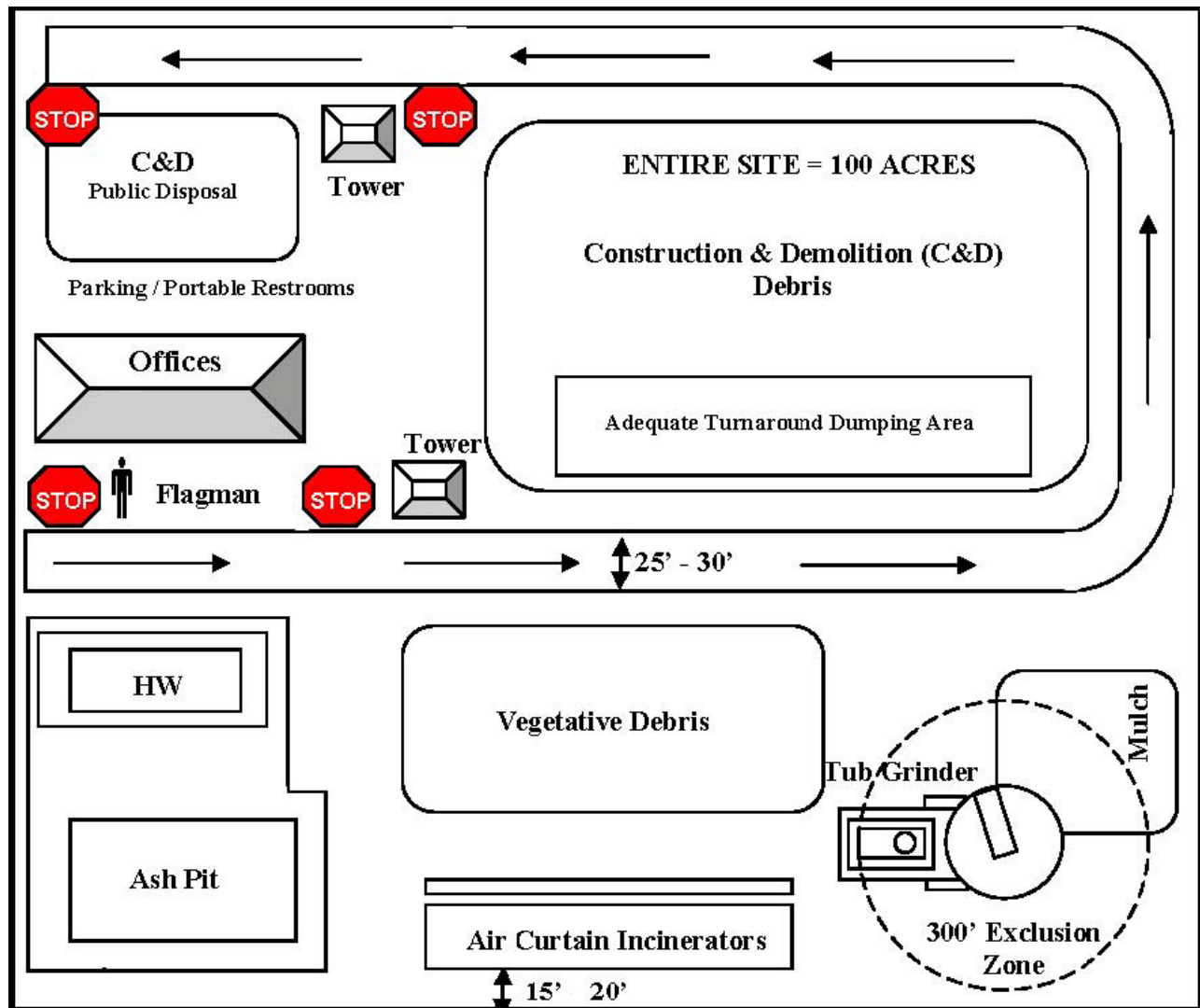
[illegible]

Figure 7: Example Debris Loading Site Log

Time	Ticket Number	Truck Number	Full Truck Rated Capacity (CY)	Pickup Location	Vegetative Debris	C & D Debris	White Goods/ Metals	Other	Issues or Comments/ Pictures Disc

ATTACHMENT R-2
Example TDSR Site Layout

Figure 8: Example Layout of TDSR Site



ATTACHMENT R-3

Supplemental Debris Monitoring Information

Table 1: Types of Debris and Monitoring Considerations

Types of Debris	Description of Debris	Considerations for Monitoring Operations
Vegetative	<ul style="list-style-type: none"> Includes whole trees, tree stumps, tree branches, tree trunks, and other leafy material 	<ul style="list-style-type: none"> Verify that only eligible debris is counted for reimbursement purposes; keep a map of all roads and rights-of-way for area Ineligible debris should be identified accordingly Evaluate the loaded capacities of the trucks/trailers to determine the percentage of the rated capacity Hand-loaded trucks/trailers are graded at 50 percent of a load because of the low compaction achieved by hand-loading, pursuant to Recovery Policy RP9523.15, <i>Debris Operations – Hand-Loaded Trucks and Trailers</i> This type of debris may be recyclable or have salvage value; document separation and salvage operations when implemented For special vegetative debris considerations, please see DAP Fact Sheet 9580.204, <i>Documenting and Validating Hazardous Trees, Limbs, and Stumps</i>
Construction and Demolition (C&D)	<ul style="list-style-type: none"> Includes, but is not limited to, damaged components of buildings and structures, such as lumber and wood, gypsum wallboard, glass, metal, roofing material, tile, carpeting and floor coverings, pipe, concrete, fully cured asphalt, equipment, furnishings, and fixtures 	<ul style="list-style-type: none"> To be eligible for Public Assistance funding, C&D debris must present an immediate threat Must be disaster generated
Hazardous Waste	<ul style="list-style-type: none"> Waste that is potentially harmful to human health or the environment that exhibits at least one of the following four characteristics: <ul style="list-style-type: none"> Ignitability Corrosivity Reactivity Toxicity 	<ul style="list-style-type: none"> Hazardous wastes may require segregation and special handling Document improper segregation Notify appropriate authorities if unsafe practices are observed during handling and disposal (know required safety procedures for the circumstances) Monitor processing carefully and regularly to verify the proper precautions are taken and the chain-of-custody is maintained Verify that hazardous wastes are delivered to an appropriate DMS, as they can require special handling, transportation, and final disposition
Household Hazardous Waste (HHW)	<ul style="list-style-type: none"> Includes hazardous products and materials used and disposed of by residential consumers, such as some paints, stains, varnishes, solvents, pesticides, and other products or materials containing volatile chemicals that catch fire, react, or explode under certain circumstances or are corrosive or toxic 	<ul style="list-style-type: none"> Verify and document that HHW is picked up and handled by specialists from the State's Department of Environmental Quality (DEQ) and/or the EPA and managed in designated areas within the DMS Verify and document that the chain-of-custody is maintained throughout the collection, handling, transport, and disposal of HHW
Electronic Waste (e-waste)	<ul style="list-style-type: none"> Includes electronics such as cathode ray tubes (computer monitors and televisions) that contain hazardous materials 	<ul style="list-style-type: none"> Ensure e-waste is segregated Ensure e-waste is removed intact, collected, and stored at the DMS for later processing Document separation and salvage activities

Table 1: Types of Debris and Monitoring Considerations (cont.)

Types of Debris	Description of Debris	Considerations for Monitoring Operations
White Goods	<ul style="list-style-type: none"> Includes discarded household appliances such as refrigerators, freezers, air conditioners, heat pumps, ovens, ranges, washing machines, clothes dryers, and water heaters 	<ul style="list-style-type: none"> Document that white goods are collected separately, cleaned, and processed to remove putrescent debris inside and to remove all oils, solvents, and refrigerants Verify and document that the DMS has adequate space for processing white goods if collected without being cleaned Document separation and salvage activities
Soil, Mud, and Sand	<ul style="list-style-type: none"> Can be deposited on streets, sidewalks, storm and sanitary sewers, water treatment facilities, drainage canals and basins, parks, and public swimming pools 	<ul style="list-style-type: none"> Document that only disaster-generated silt and soils are removed (must know pre-disaster condition and documented maintenance) Document any contaminated soil issues to ensure proper handling, processing, and disposition Verify that any contaminated disaster-generated soils are addressed by specialists from the State's DEQ and/or the EPA and managed appropriately in designated areas
Vehicles and Vessels	<ul style="list-style-type: none"> Includes vehicles and vessels meeting one of the following criteria: <ul style="list-style-type: none"> Presents a hazard or immediate threat that blocks ingress/egress within a public use area It is abandoned Applicant followed local ordinance and State and Federal laws in securing possession Applicant has verified chain-of-custody for the vehicle or vessel 	<ul style="list-style-type: none"> Verify that each vehicle or vessel identification number is documented and processed appropriately Verify that collected vehicles and vessels are transported to a secure collection area Verify that vehicles are processed to remove all minerals and fluids before processing or destruction Document separation and salvage activities that are implemented
Putrescent Debris	<ul style="list-style-type: none"> Includes debris that will decompose or rot, such as animal carcasses 	<ul style="list-style-type: none"> Document that collection is in accordance with contract specifications or other requirements Document actual volume of putrescent debris
Infectious Waste	<ul style="list-style-type: none"> Waste capable of causing infection in humans including contaminated animal waste, human blood and blood products, medical waste, pathological waste, and discarded sharps 	<ul style="list-style-type: none"> Document that collection and separation is in accordance with prescribed safety and medical practices Document volume of debris Verify that infectious waste debris quantities are well documented and chains-of-custody are maintained Special handling, containerization, and disposal may be required
Chemical, Biological, Radiological, and Nuclear (CBRN)-Contaminated Debris	<ul style="list-style-type: none"> Includes debris contaminated by CBRN sources 	<ul style="list-style-type: none"> Ensure CBRN-contaminated debris is cleared by law enforcement officials before removal so as not to undermine integrity of the crime scene (as from a man-made disaster) Be aware of the types of evidentiary material being sought in case debris is located outside of the identified crime scene Verify and document the separation, processing, and disposal to ensure it follows the prescribed procedures

Source: FEMA 327 Public Assistance Debris Monitoring Guide, Appendix A: Job Aid, October 2010.

Table 2: Debris Monitoring Roles and Responsibilities

Entity	Entity Responsibilities	Tasks
Debris Removal Contractor	Conduct debris removal operations per the terms of the contract.	<ul style="list-style-type: none"> Monitor its own day-to-day operations to ensure its contractual obligations are being met.
PA Applicant Monitoring Contractor	Works for Applicant to monitor debris contractor's day-to-day operations to ensure the applicants expectations and contractual requirements are being met.	<ul style="list-style-type: none"> Provide debris monitoring personnel who are trained in eligibility. Monitor operations in accordance with the contract requirements. Provide all monitoring documents as required in the monitoring contract.
PA Applicant (The City)	<p>Provide oversight and quality assurance of both the debris removal contract and the monitoring contract (if applicable).</p> <p>Request PA funds for eligible work. Ensure performance measures are met and eligible work is documented.</p> <p>Understand eligibility requirements and ensure work performed under the contract meets these requirements.</p>	<ul style="list-style-type: none"> Designate project manager. If debris removal is performed by force account labor: Provide documentation to substantiate eligible debris quantities. Ensure compliance with <u>subgrant</u> requirements. <p><i>If debris removal is performed under contract:</i></p> <ul style="list-style-type: none"> Ensure that debris removal contractors and monitoring contractors (if applicable) understand eligibility requirements for the debris removal operations. Ensure that only eligible debris quantities are being claimed for Public Assistance. Resolve issues or discrepancies associated with the contract.
State Grantee (Missouri)	<p>Ensure grant requirements outlined in the 44 CFR are being met and that PA applicants are receiving funds for eligible costs.</p> <p>Responsible for monitoring the grant and <u>subgrant</u> to ensure compliance with Federal, State and local laws and regulations.</p>	<ul style="list-style-type: none"> Monitor the grant and <u>subgrant</u> requirements. Ensure that the applicant is sufficiently monitoring the debris removal operation (FEMA\Grantee effort). Conduct random monitoring at load sites and disposal sites to ensure compliance with grant requirements (FEMA\Grantee effort). Notify subgrantee of compliance issues and outline corrective actions (FEMA\Grantee effort).

Table 2: Debris Monitoring Roles and Responsibilities (cont.)		
Entity	Entity Responsibilities	Tasks
FEMA	<p>Ensure grant requirements outlined in 44 CFR are being met. Fund eligible work.</p> <p>Responsible for the preparation of large project worksheets, development of the scope of work and the obligation of funds.</p> <p>Responsible for monitoring the grant to ensure compliance with Federal, State and local laws and regulations.</p>	<ul style="list-style-type: none"> ▪ Develop large project worksheets in coordination with the Grantee and subgrantee. ▪ Utilize monitors to ensure that the applicant is sufficiently monitoring the debris removal operation. (FEMA\Grantee effort) ▪ Conduct random monitoring at load sites and disposal sites to ensure compliance with grant requirements. (FEMA\Grantee effort). ▪ Notify Grantee/subgrantee of compliance issues and outline corrective actions (FEMA\Grantee effort). ▪ Increase or decrease monitoring efforts as necessary to ensure corrective actions are in place and operations are being effectively monitored.

Source: FEMA Debris Monitoring Fact Sheet 9580.203.